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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/994,608	11/28/2001	Naoharu Yanagawa	Q67433	9299
7590 09/03/2004		EXAMINER		
SUGHRUE MION, PLLC		TRAN, THANG V		
2100 Pennsylvania Avenue, NW		ART UNIT		
Washington, DC 20037-3213		PAPER NUMBER		

2653

DATE MAILED: 09/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/994,608	<b>Applicant(s)</b> YANAGAWA ET AL.	
	<b>Examiner</b> Thang V. Tran	<b>Art Unit</b> 2653	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 20 and 22 is/are rejected.
- 7) ☒ Claim(s) 5-19 and 21 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3, 4, 20 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Ohmori et al. (US 6,122,237).

Ohmori et al., according to Figs. 9-11 and 25-28, shows a disk drive apparatus including all features of the instant claimed invention as interpreted follow.

Regarding claims 1 and 22, see Figs. 9 and 10 which show an apparatus for recording/reproducing information on/from a recording medium (D) set in the apparatus and the apparatus comprises: an optical system (142) for leading a laser beam emitted from a light source to a recording surface of the optical recording medium and a laser beam reflected by the recording surface of the recording medium to a photo detector (see column 18, lines 21-23), a read signal generator (221a, 221b, 222 and see column 18, lines 18-25) for generating a read signal in accordance with an output signal of the photo detector, and servo device comprising: a recording medium type determining device (231) for determining a type of said optical recording medium (see steps 9 and 10 in Fig. 10); a tilt drive signal generator (183, 231) for generating a tilt drive signal so as to reduce a tilt angle between a normal to the recording surface of said optical recording medium at a position of said laser beam irradiating said recording surface and an optical axis of said laser beam by a method for generating a tilt drive signal corresponding to the type determined by said recording medium type determining device (see steps 10-13 in Fig.

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10); a tilt angle adjuster (161) for adjusting said tilt angle; and a driver (216) for driving said tilt angle adjuster in accordance with said tilt drive signal, as recited in claim 1 and corresponding functional method claim 22.

Regarding claims 3 and 4, see column 18, line 64 to column 19, line 9, and column 33, line 43 to column 34, line 15, for the type of the optical disk recited in this claim.

Regarding claim 20, see respective disclosure of steps 10 and 11 in Fig. 10.

3. Claims 1 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Tokushuku et al (US 5,539,710) cited by Applicant.

Tokushukui et al., according to Figs. 5-24, shows a disk drive apparatus including all features of the instant claimed invention as interpreted follow.

Regarding claims 1 and 22, see Figs. 5 and 6 which show an apparatus for recording/reproducing information on/from a recording medium (29) set in the apparatus and the apparatus comprises: an optical system (35) for leading a laser beam emitted from a light source to a recording surface of the optical recording medium and a laser beam reflected by the recording surface of the recording medium to a photo detector (53 in Fig. 7), a read signal generator (51 in Fig. 7) for generating a read signal in accordance with an output signal of the photo detector, and servo device comprising: a recording medium type determining device (46 in Fig. 6) for determining a type of said optical recording medium; a tilt drive signal generator (45, 50 in Fig. 6) for generating a tilt drive signal so as to reduce a tilt angle between a normal to the recording surface of said optical recording medium at a position of said laser beam irradiating said recording surface and an optical axis of said laser beam by a method for

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generating a tilt drive signal corresponding to the type determined by said recording medium type determining device; a tilt angle adjuster (tilt motor) for adjusting said tilt angle; and a driver (31) for driving said tilt angle adjuster in accordance with said tilt drive signal, as recited in claim 1 and corresponding functional method claim 22 (see respective disclosure of Figs. 5, 6 and 10 for further details).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tokushuku et al (US 5,539,710) in view of Ogasawara (US 6,141,304).

Tokushuku et al., according to Figs. 5-6, shows all the features of the instant claimed invention (see the rejection above) except for the use of a tilt angle adjuster includes a liquid crystal panel having a plurality of regions arranged in said optical system, and the driver drives each of said plurality of regions of said liquid crystal panel in accordance with the tilt drive signal. Ogasawara, according to Figs. 1-15, teaches the use of tilt angle adjuster (3) includes a liquid crystal panel having a plurality of regions (16, 18) arranged in said optical system (see Figs. 4-6 as example), and the driver (10) drives each of said plurality of regions of said liquid crystal panel in accordance with the tilt drive signal. It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the tilt angle adjuster its

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driver in the apparatus of Tokushuku et al with the tilt angle adjuster its driver as taught by Ogasawara et al for adjusting a tile angle in order to make the apparatus of Tokushuky more compact in size.

***Allowable Subject Matter***

6. Claims 5-19 and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 5-19 and 21 are allowable over the prior art of record because the prior art of record, considered in combination or individually, fails to suggest or fairly teach a tilt servo control device including a combination of all features as particularly recited in each of claims 5 and 17. Claims 6-16, 18, 19 and 21 are allowable with their respective parent claim.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thang V. Tran whose telephone number is (703) 308-1551. The examiner can normally be reached on M-F 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on 703 305-6137. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

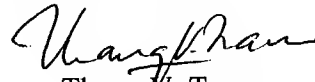
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Thang W. Tran  
Primary Examiner  
Art Unit 2653